Validation of Activity Monitoring system (Activ8) for postures, movements and step detection in hospital patients

Published: 10-05-2021
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The goal of the current study is to determine the validity of an activity monitor (Activ8) for measuring body postures and movements and step count in a hospitalized population.

Ethical review	Approved WMO
Status	Pending
Health condition type	Other condition
Study type	Observational non invasive

Summary

ID

NL-OMON55087

Source
ToetsingOnline

Brief title
IMPACT-valA8

Condition

- Other condition

Synonym
Hospital population in general

Health condition

Algemene ziekenhuisppopulatie

Research involving
Human

Sponsors and support

Primary sponsor: Erasmus MC, Universitair Medisch Centrum Rotterdam
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Activ8, Activity monitor, Hospital, Validation

Outcome measures

Primary outcome

The agreement, absolute and relative difference in time (postures/movements)

and number (steps) of the Activ8 compared to video observation.

Secondary outcome

not applicable

Study description

Background summary

Hospitalized patients spent most of their stay in sedentary behaviours, which have a negative effect on health. Objective information about physical activity could support clinical physical therapists and nurses to improve patient*s physical activity. Current accelerometer-based activity monitors like the Activ8, however, are not validated for monitoring a hospitalized population.

Study objective

The goal of the current study is to determine the validity of an activity monitor (Activ8) for measuring body postures and movements and step count in a hospitalized population.

Study design

In this validation study, upper leg accelerations will be automatically converted classified into postures, movements and step count using a accelerometer-based activity monitor (Activ8) during an activity protocol. The classifications and step count will be validated against video recordings.

Intervention

Patients will perform a set of basic and functional activities. These activities are commonly performed during hospital admission. The maximum duration of the activity protocol is 1 hour with rest included.

Study burden and risks

The burden and/or risks related to participation is low. No physical or psychological discomfort is expected. There is no benefit for the patient to participate in the study.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

admitted to hospital

Exclusion criteria

mild to severe cognitive problems

Study design

Design

Study type: Observational non invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-01-2021
Enrollment:	40
Type:	Anticipated

Ethics review

Approved WMO

Date:	10-05-2021
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL75098.078.20